

**REMARKS**

This Reply is being submitted in view of the non-entry of Applicants prior response filed June 27, 2005. Entry of this Reply is respectfully requested, because no claim amendments are presented and it raises no new issues that would require further consideration or search.

**THE PRIOR ADVISORY ACTION**

The following numbered paragraphs correspond to the numbered paragraphs in the Advisory Action.

2. In Applicants previous, non-entered response, a proposal was made to amend claim 1 to clarify that the surface layer was uncoated. Although it is Applicant's position that such an amendment to claim 1 is not necessary because the layer is already identified as a "surface" layer, such an amendment was proposed because it was Applicants impression that this might be favorably considered by the Examiner in determining whether to allow the application. However, in view of the Examiner's non-entry of the prior amendment because of this proposed claim change, the present Request for Reconsideration is being submitted with an explanation as to how the current claims distinguish from the cited references.

The presently claimed invention, as defined by claim 1, is directed to

1. A wrap film comprising a layer of resin composition (C) as at least one surface layer, wherein resin composition (C) comprises 100 parts by mass of an aliphatic polyester resin (A) and 5 to 40 parts by mass of a liquid additive (B), having a surface roughness of 0.5 to 4.0 nm, a tensile modulus of 400 to 1500 MPa, a heat resistant temperature of 130 °C or more and cling energy of 0.5 to 2.5 mJ.

The wrap film has at least one surface layer comprising a composition (C) comprising the claimed ingredients (A) and (B). Page 12, lines 11-21 of the present specification teaches that the

wrap film can be a monolayer consisting only of a layer (C) or a multilayer film comprising layer (C) on one or both surfaces of the wrap film. Also, at page 7, line 26 to page 8, line 7 of the present specification, it is taught that additive (B) which is used in layer (C) is preferably an epoxy plant oil or acetylated citric acid fatty acid ester in view of possible direct contact with the food to be wrapped with the film. The surface layer recited in the claim is by definition exposed since it is a surface layer.

3. On page 3 of the Advisory Action, the Examiner notes that she did not use the term “optionally” in formulating any of the rejections, particularly in relation to the Japanese citation. The Examiner is correct; however, as stated in the previous response, Shibata et al. and Kuroki et al. were relied on in rejecting claims 1-13, and claims 6 and 7 were further rejected over these same two references further in view of the Japanese reference. Thus, in this sense, the Japanese reference was an “optional” reference in the rejection of claims 6 and 7. However, in this response, these two separate rejections are treated under separate sub-headings.

On page 3 of the Advisory Action, the Examiner notes that the amendment to claim 1 “exposed” is not entered, so that the arguments relating to this fundamental and important point have been apparently ignored by the Examiner. As noted above, the claim indicates that the layer in question is a “surface layer,” which by definition is exposed. If it is not exposed, it would not be a surface layer.

#### **INTERVIEW SUMMARY**

Applicant’s acknowledge with appreciation the courtesies extended by the Examiner during the personal interview held with the Examiner on June 10, 2005. The Interview Summary prepared

by the Examiner summarizes the main points discussed at the interview. However, Applicants would like to clarify one point. A more accurate representation of the discussion at the interview for item (b) would be “(b) Kuroki calls for one or more added layers to change surface roughness properties.” Although the Interview Summary does not reflect that an agreement was reached at the interview, it was the impression that the Examiner was inclined to allow the application. One point that the Examiner asked the Applicant to address in the response to be filed, which is not mentioned in the Interview Summary, is to clarify how the present claims, which recite a product “comprising” at least one surface having specified properties, is different from the product of Kuroki, which can modify certain properties by adding an additional layer to the product. The undersigned indicated that he would consult with the Applicant on this point.

#### ***RESPONSE TO OFFICE ACTION***

The following sections correspond with the sections of the outstanding Office Action.

##### **Paragraphs 1-2 — Objections**

The Examiner objects to claims 2 and 6-7 for being drawn to a different product than claim 1, the claim from which they depend. For example, claim 2 is drawn to “a wrap film roll” which incorporates the “wrap film” of claim 1.

Applicants note that the Examiner has requested that Applicants “voluntarily” revise claims 2, 6 and 7 so that each product is separately claimed. As such, it appears that the Examiner is aware that there is no statutory basis for the Examiner to force Applicants to amend the claims as requested

and that the Examiner has requested the amendment in view of a style of claims preferred by the Examiner.

The Examiner should be aware of the instructions at MPEP 608.01(n)(III), wherein examples of dependent claims which are similar in format to Applicants' claims 2, 6 and 7 are taught to meet the "infringement test." The "infringement test" asks whether it is conceivable that the dependent claim could be infringed by anything which would not also infringe the basic claim. Since it is not conceivable that Applicants' claims 2, 6 and 7 could be infringed by anything that would not also infringe claim 1, then the instant claims 2, 6 and 7 meet the "infringement test."

Applicants respectfully submit to the Examiner that the style of instant claims 2, 6 and 7 is preferred by Applicants. As such, Applicants have not "voluntarily" amended claims 2, 6 and 7 as requested by the Examiner, and withdrawal of the claim objections is respectfully requested.

**Paragraph 14 — Rejection based on Shibata et al. in view of Kuroki et al**

In paragraph 14 of the Office Action, claims 1-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Shibata et al. in view of Kuroki et al., (EP 1029890A2). Applicants respectfully traverse this rejection for the following reasons.

As discussed in Applicants' previous response and at the interview, the present invention is drawn to a wrap film comprising a layer of resin composition (C) as at least one surface layer, wherein resin composition (C) comprises an aliphatic polyester resin (A) and a liquid additive (B), wherein the surface layer has a surface roughness of 0.5 to 4.0 nm, and the wrap film has favorable strength, heat resistance and cling properties. Not only is the inventive wrap film easy to use, but it

comprises an aliphatic polyester which is considered biodegradable. It is this combination of properties, which makes the inventive wrap film more desirable than the wrap films in the prior art.

As discussed at the interview, Shibata et al. disclose a wrap film made from a *polyolefin* and not an aliphatic polyester as claimed by Applicants. Although Shibata et al. state that a low surface roughness of a polyolefin film contributes to the enhancement of the clinging property, the level of the mentioned low roughness of Ra is of 40 to 60nm. This surface roughness of the film disclosed in Shibata et al. is about ten times higher than the film claimed in the present application. More specifically, Shibata et al. disclose a wrap film surface roughness equal to or less than 0.08  $\mu\text{m}$  (80 nm) in terms of Ra and equal to or less than 0.66  $\mu\text{m}$  (650 nm) in terms of Rz, beyond which the roughness decreases the clinging energy (see par. 0126). The examples disclose films that have Ra of 0.04 - 0.06  $\mu\text{m}$  (40 - 60 nm) and Rz of 0.4 - 0.6 nm (400 - 600 nm) (see par. 0169 and Tab. 8).

Kuroki et al. disclose a film made from an aliphatic polyester. The surface roughness of the film is not measured, however, it can be assumed that the surface roughness is a conventional surface roughness. There are no special techniques disclosed in this reference that would allow the production of a film having an extremely low surface roughness, as claimed in the present application. **Importantly**, Kuroki et al. disclose that if special surface properties are desired, additional layers can be **placed on** the polyester film (see paragraphs [0045] –[0047]). These additional layers used for coating on the wrap film include an acrylic resin as copolymer made from acrylic ester and other vinyl monomers to impart a clinging property to the wrap film. In the sense that the coating constitutes another layer, Kuroki et al.'s aliphatic ester film can not be exposed to have an excellent clinging property. In such a situation, the disclosed aliphatic polyester would no longer be a “surface layer” formed from an aliphatic polyester having certain properties, as presently

claimed. The aliphatic polyester layer that was previously a surface layer would no longer be a surface layer after it is coated by another material. The aliphatic polyester film of the present invention has a surface with an extremely low surface roughness therefore it needs no extra additional layer for an excellent clinging property. It is believed that this explanation in combination with the above-amendment to claim 1, addresses the question raised by the Examiner at the interview as to whether the current claims are sufficiently distinguishable from Kuroki et al.

According to MPEP 2141, when applying 35 U.S.C. § 103, one of the tenets of patent law which must be adhered to is that the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination. It is respectfully submitted that even if Shibata et al. is combined with Kuroki et al., there is no suggestion of preparing a film from an aliphatic polyester having a smoothness within the claimed range. The only cited reference that gives a smoothness value (Shibata et al.) describes a surface ten times more rough than the present invention. Kuroki et al. do not indicate that if one wants to change the surface properties of the polyester film disclosed therein, one should coat the surface of the polyester film with another layer. Even if the two references are considered in combination, there is no suggestion of preparing a film of an aliphatic polyester having an extremely smooth surface as claimed in the present application.

**Paragraph 10 – Rejection of Claims 6 and 7 over Shibata and Kuroki in view of JP 05-162747**

Shibata and Kuroki have been discussed in the preceding section with respect to the rejection of claims 1-13 set forth in Paragraph 14 of the Office Action. The above comments are also relevant to the present rejection of claims 6 and 7. With respect to the further citation of JP 05-162747 (JP '747), this reference was cited for teaching paper cutters. In view of the fact that JP '747 does not

fairly suggest modifying the polyolefin wrap film of Shibata et al. to have the instant surface roughness and to be made of a polyester, JP '747 does not cure the deficiencies of Kuroki et al. and Shibata et al.

Accordingly, withdrawal of the rejections based on Kuroki et al., Shibata et al. and JP '747 is respectfully requested.

**Paragraph 13 – The Rejection over Topolkaraev et al. in view of Shibata et al.**

Claims 1, 3-5 and 8-13 have been rejected under 35 USC 103 as being unpatentable over Topolkaraev in view of Shibata. This rejection is respectfully traversed. Reconsideration and withdrawal thereof are respectfully requested.

According to MPEP 2141, when applying 35 U.S.C. § 103, one of the tenets of patent law that must be adhered to is that the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination. It is respectfully submitted that the skilled artisan would not be motivated to look to Shibata et al. to modify the film of Topolkaraev et al., since there is no suggestion of the desirability to modify the film of Topolkaraev et al. with the features of the film of Shibata et al.

As discussed at the interview, the patent to Topolkaraev et al. is directed to making materials for use with diapers that have enhanced breathability (abstract, Col. 2, line 66 to Col. 3, line 1). Breathability is a property that is not desired in a film which can be used for wrapping food, such as the film of Shibata et al. Furthermore, the film of Topolkaraev is much rougher than the film of the Shibata et al. due to various voids and impressions that are intentionally formed into the surface during preparation as illustrated below.

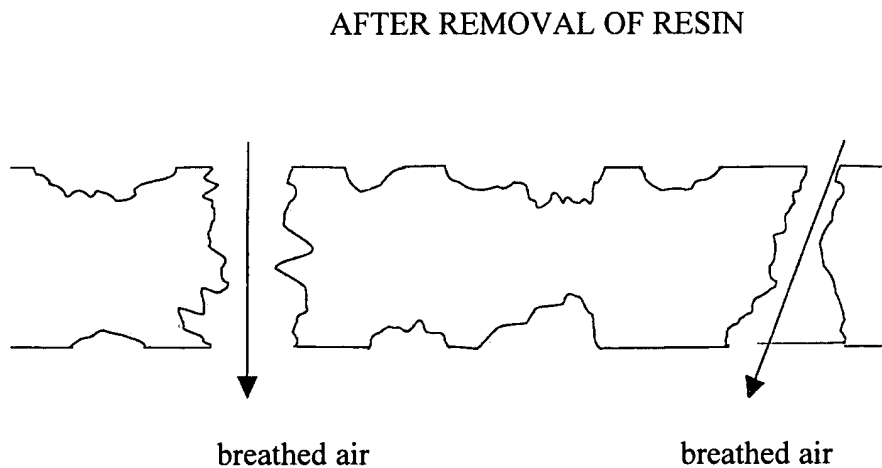
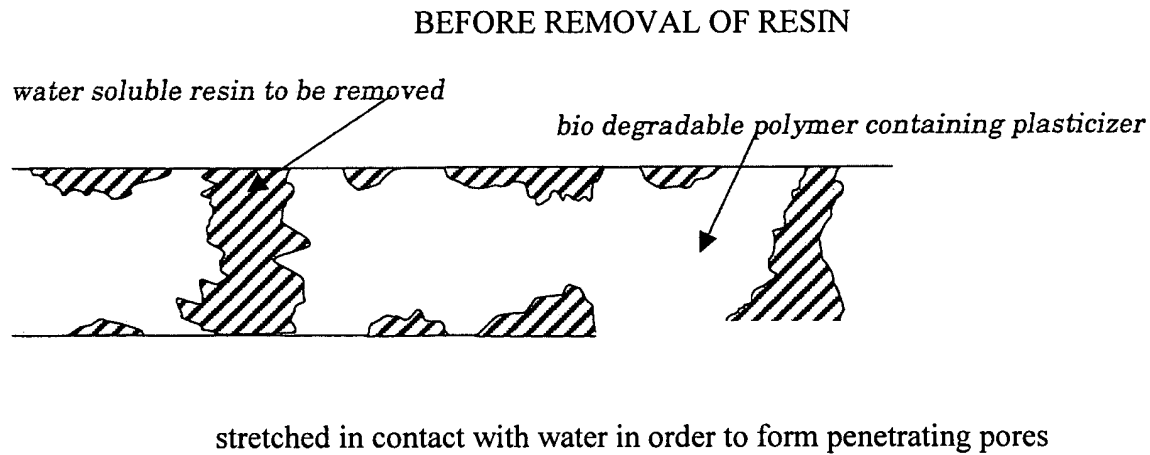
Topolkaraev et al. disclose the provision of high breathability and water vapor transmission properties to a film made from a precursor film formed from biodegradable polymer and water-soluble resin co-kneaded and then treated by annealing or spraying to produce a pretreated film. The pretreated film is subjected to etching with water, stretching in contact with water, or swelling then freeze-drying, in order to remove the water soluble resin from the film leaving a porous and breathable film (see col. 8, lines 21 to 27, and lines 39 to 50).

In the above process, the water soluble polymer removed from the pretreated film leaves behind in the film voids where the removed polymer previously resided. When an area filled with a portion of the water soluble resin in the pretreated film runs through the film from one surface to the other, the area will be converted to a pore penetrating from one surface to the other (see fig. 1, col. 8, line 21 to col. 9, line 60). When the area touches only one surface, the area will be converted to a concave impression. These numerous concave impressions fail to penetrate the film to form proper pores. Because of the surface roughness created by the impressions, the surface of the film must be very rough.

The resulting numerous pores and impressions produce a film with a very rough surface. The mechanism of the formation of the pores and impressions are illustrated below.

The following is a cross section of a pretreated film of Topolkaraev et al. before and after the removal of water soluble resin:





Because of the surface roughness created by the impressions the surface of the film must be very rough. It would be clear to the skilled artisan that the extent of the roughness of Topolkaraev is far beyond the roughness allowable for a wrap film of the present invention.

Since Shibata et al. and Topolkaraev et al. are concerned with totally different products having totally different performance requirements, a researcher trying to prepare a plastic film suitable for wrapping food would not turn to the teachings of Topolkaraev et al. In particular, a high degree of breathability is not a desirable property of a film used for wrapping food. Even if one

skilled in the art were to turn to the teachings of Topolkaraev et al., one would not be motivated to prepare an extremely smooth film since the materials in Topolkaraev et al. have a rougher surface than Kuroki et al. Furthermore, the combination of Topolkaraev et al. with Shibata et al. is improper since the two references are from non-analogous art. *In re Clay* (CAFC 1992), 23 PQ2d 1058.

In view of the fact that the motivation prong of the obviousness analysis is nonexistent, a *prima facie* case of obviousness cannot be said to exist. As such, withdrawal of the rejection over Topolkaraev et al. and Shibata et al. is respectfully requested.

Assuming for sake of argument that Topolkaraev et al and Shibata et al could be combined in the manner suggested by the Examiner (which they clearly cannot), the resulting product would not have the claimed surface roughness, nor would there be any motivation for the claimed surface roughness. As explained above, the product of Shibata has a roughness about 10 times greater than the claimed surface roughness. The product of Topolkaraev et al is much rougher than Shibata et al. In fact, the product of Topolkaraev et al is so rough that the surface roughness of the product cannot be measured by the techniques used to measure roughness in the present invention which are specifically designed for measuring very smooth surfaces. Thus, even if the two references are combined, the surface roughness of the resulting product is at least 10 times rougher than the surface roughness of the present invention. There is no motivation to make a wrap film which is smoother than that disclosed in Shibata et al. In fact, the Examiner has not explained where there is motivation in any of the references to make a film that is smoother than Shibata.

As stated in Applicants specification at page 5, lines 3-11 of the specification, "... strict control of the surface roughness of the film are important in achieving a clinging property and a pulling-out property in the range as described above." The importance of surface roughness is

further discussed in the specification at page 9, line 3- to page 10, line 11. The importance or effect of making a film having the specific chemical constitution as claimed as well as the very smooth surface roughness value is not even hinted at in the prior art. Accordingly, no prima facie case of obviousness has been established over Topolkaraev in view of Shibata.

**CONCLUSION**

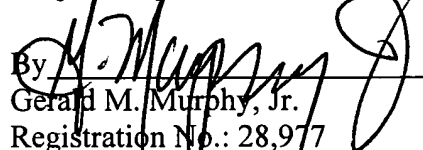
In view of the above-amendments and comments, Applicants respectfully submit that the claims are in condition for allowance. A Notice to such effect is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gerald M. Murphy, Jr., Reg. No. 28,977 at the telephone number of the undersigned below, to conduct a further interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: June 27, 2005

Respectfully submitted,

By  \_\_\_\_\_  
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